

REMARKS

Applicants have added new claims 4-14. Claims 1-14 are now pending in the application.

In the Office Action, claims 1, 3 were rejected under 35 U.S.C. 102(b) as being anticipated by, or alternatively under 35 U.S.C. 103(a) as being obvious over Hagiwara (US 6,908,231). Claim 2 was rejected as being anticipated by JP (2005/138653)

Claims 1 and 2 recite that:

(A) in a state before being plastically deformed by caulking, said end portion of the hub being further formed with a second smaller diameter peripheral portion that is continuous to the first smaller diameter circumferential portion and has a smaller diameter than that of the first smaller diameter circumferential portion, and

(B) the start point of the second smaller diameter circumferential portion is located at a position whose distance from a boundary between the first bearing track and the second bearing track is smaller than the width of the inner ring element and larger than the length of difference between the width of the inner ring element and the length from the start point of the inner surface of the chamfered portion to said vehicle center side end face of the inner ring element.

Particularly in view of the second claimed feature (B), described more fully in the specification, for example on page 13, lines 8-20 and on page 15, lines 8-21, an advantage is provided that the deformation of the track 1b of the inner ring element 3 can be minimized.

In contrast, Hagiwara describes a stepped portion 38 provided to serve as a reference point for deformation when the cylindrical section 37 is plastically deformed outward in the radial direction in order to form the caulking portion 28, so as to smoothly process the cylindrical section 37 to make the caulking portion 28 without generating defects such as a crack or a large void. (Col. 8, lines 55-65.) To achieve this, the axial position of the broader portion between the stepped portion 38 and the small diameter stepped portion 11 substantially matches the axial position of the axially outer end position of the chamfered portion 35. Neither Hagiwara nor JP (2005/138653) describe or suggest the features of claims 1 and 2 described above under label (B), and cannot provide the advantages of the claimed invention.

Claim 7 recites that a portion of the hub end portion on which the inner ring element is fitted, is expanded inside the continuous circumferential groove of said inner ring element by material forming the hub end portion having been flown and expanding therein. As explained in the specification, for example on page 22, lines 22-27, by letting the expansion of the material be absorbed by, or evacuated into the circumferential groove 136, it is possible to relieve the radially outward force that acts on the inner ring element 103 directly, whereby it is possible to prevent radially expansive deformation of the inner ring element 103. These elements and advantages are not described or suggested in JP (2005/138653).

New claims 4-14 have been added by applicants. Support for the subject matter of claims 5-6 is found in the specification, for example on page 11, lines 3-4. For claim 7, support is found on page 22, lines 7-18. For claim 8, on page 22,

lines 16-18, for claims 9-12, on page 23, lines 19-23, and for claims 13-14 on page 24, lines 11-16.

In view of the foregoing, applicants respectfully submit that claims 1, 2 and 7 are neither anticipated nor obvious in view of the cited reference, and are allowable. The remaining pending claims depend from allowable claims, and at least for that reason are also submitted to be allowable.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket # 038919.58166US).

Respectfully submitted,



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